REMARKS

Claims 1-25 remain in the present application. Claims 1 and 18 are independent. Claims 1 and 18 have been amended to make them more readable and clear.

Initially, Applicants thank the Examiner for the interview on January 23, 2003.

Example Embodiment of the Present Invention

To aid the Examiner's understanding of the present invention, an example embodiment of the present invention will be briefly described.

In an example embodiment of the present invention as disclosed, *inter alia*, on page 2 of the specification, Fig. 1A and Fig. 2, a method defines on step S100 a characteristic composite fingerprint for a subscriber station 26 associated with the operation of the subscriber station 26 in its authorized coverage area 36. A composite fingerprint refers to a statistical compilation of detected signal characteristics of a receive signal received from the subscriber station 26. A characteristic composite fingerprint refers to a composite fingerprint associated with the subscriber station 26 transmitting within an authorized coverage area 36 or another known area. An authorized coverage area 36 is a coverage area where communications service is intentionally provided to a particular subscriber station 26. In contrast, a restricted coverage area 38 is a coverage area where communication service to a particular subscriber station 26 is prohibited or limited. An operational area monitor 12 monitors in step S102 an operational composite fingerprint for the subscriber station 26. The operational composite fingerprint refers to a composite fingerprint that is determined while the subscriber station 26 is active, regardless of whether the subscriber station 26 is located in the authorized coverage area 36 or the restricted coverage area 38. The monitor 12 or

another network element compares in step S104 the operational composite fingerprint to the characteristic composite fingerprint to determine if the subscriber station 26 is operating within the authorized coverage area 36 or the restricted coverage area 38.

Rejections Under 35 U.S.C. § 102

Claims 1, 2, 18, an 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Barrere et al. (US Patent 5,715,518). Applicants respectfully traverse.

With regard to claim 1, Applicants assert that Barrere et al. fail to disclose comparing the operational composite fingerprint to a characteristic composite fingerprint of the subscriber station to determine if the subscriber station is operating within the authorized area of the subscriber station; the characteristic composite fingerprint being associated with the authorized area. Barrere et al., instead, disclose a system for the identification of an individual transmitter operating in an environment containing a plurality of similar transmitters as either an authentic transmitter or an unauthorized transmitter. The system establishes a reference fingerprint by collecting and storing a plurality of response waveforms designated as reference waveforms for the authentic transmitter. The system can utilize the stored reference data associated with the authentic transmitter to authenticate an individual transmitter which transmits identification data identifying it as the authentic transmitter (Col. 2, line 42 - Col. 3, line 10). Generally, Barrere et al. discloses how to authenticate one transmitter out of many. However, Barrere et al. does not disclose a characteristic composite fingerprint being associated with an authorized area of a subscriber station. Therefore, Barrere et al. cannot disclose or suggest comparing the operational composite fingerprint to the characteristic composite fingerprint of the subscriber station to determine if the subscriber station is

operating within the authorized area of the subscriber station; the characteristic composite fingerprint being associated with the authorized area as recited in claim 1. Based on the foregoing, Applicants assert that each and every element of the claimed invention is not disclosed by Barrere et al.

With regard to independent claim 18, claim 18 includes similar limitations to claim 1 and is allowable for at least the reasons stated above for independent claim 1.

With regard to claims 2 and 19, Applicants assert that they are allowable at least because they depend from one of claims 1 and 18. Accordingly, Applicants respectfully request that the Examiner withdraw the art grounds of rejection.

Rejections Under 35 U.S.C. § 103

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilsenrath et al. (U.S. Patent No. 6,026,304). Applicants respectfully traverse.

With regard to independent claim 1, Applicants assert that Hilsenrath et al. fails to disclose comparing an operational composite fingerprint to a characteristic composite fingerprint of the subscriber station to determine if the subscriber station is operating within the authorized area of the subscriber station; the characteristic composite fingerprint being associated with the authorized area. Hilsenrath et al. instead is directed to radio transmitter location finding for wireless communication network services and management. Hilsenrath et al. disclose determining a signal signature and comparing the signature to a database of calibrated signal signatures and corresponding locations. In one aspect of the system of Hilsenrath et al., the database of calibrated signal signatures and corresponding locations is generated by a calibration procedure in which GPS location data of a

calibration mobile is associated with the signal signature of the calibration's mobile. By searching such a database, a location whose calibrated signature best matches the measured signature of a subscriber mobile station is selected as the most likely location. In this manner, the location of the transmitter can be accurately determined from a signal received at a single base station, even in a severe multipath environment (Col. 4, lines 55-67). However, Hilsenrath et al. do not disclose a characteristic composite fingerprint being associated with an authorized area of a subscriber station. Therefore, Hilsenrath et al. cannot disclose or suggest comparing the operational composite fingerprint to a characteristic composite fingerprint of the subscriber station to determine if the subscriber station is operating within the authorized area of the subscriber station; the characteristic composite fingerprint being associated with the authorized area as recited in claim 1. Based on the foregoing, Applicants assert that claim 1 is not made obvious to one skilled in the art by Hilsenrath et al.

Moreover, the Examiner admits that Hilsenrath et al. is deficient on page 3 of the Office Action by asserting that Hilsenrath et al. does not specifically disclose that the characteristic composite fingerprint is for the subscriber station. The Examiner asserts that Hilsenrath et al. discloses a characteristic composite fingerprint compiled for a calibration mobile. The Examiner then asserts that it would have been obvious to use signals from the subscriber station to preserve system resources by not having to involve a second device. Applicants respectfully disagree.

Applicants point out that references must be considered as a whole and must suggest the desirability and thus the obviousness of making a combination. This being said, Hilsenrath et al. generally discloses a system for determining a location of a mobile device. A base station determines a signal signature of a mobile transmitter (Col. 4, lines 39-48). The signature is

compared to a database of calibrated signal signatures and corresponding locations, and a location whose calibrated signature best matches the measured signature is selected as the most likely mobile location. The database of calibrated signal signatures and corresponding locations is generated by a calibration procedure in which GPS location data of a calibration mobile is associated with the signal signature of the calibration mobile. (Abstract and Col. 4, lines 35-55).

The Examiner suggests that it would have been obvious to use a subscriber station in lieu of the calibration mobile of Hilsenrath et al. to preserve system resources by not having to involve a second device (calibration mobile). However, to do as the Examiner suggests would require each subscriber mobile transmitter in a system to go through the calibration process disclosed by Hilsenrath et al. In the calibration process of Hilsenrath et al., a GPS receiver, computer, and phone are placed in a vehicle which moves to various locations throughout a base station service area. At each location, a base station determines the signal signature for that location and associates the signature with the GPS location transmitted from the mobile transmitter (Col. 9, lines 17-23).

Applicants assert that no one skilled in the art at the time of the Applicants' invention would recognize the calibrating of many subscriber mobile transmitters in a cellular system using the procedure described above as a preservation of system resources – quite the opposite is true. This being said, there is no motivation for one skilled in the art to use a subscriber mobile transmitter in lieu of the calibration mobile in the system of Hilsenrath et al.

Based on the foregoing, Applicants assert that Hilsenrath et al. does not disclose or suggest comparing an operational composite fingerprint to a characteristic composite fingerprint of the subscriber station as recited in claim 1. Claim 1 is not rendered obvious to one skilled in the art by Hilsenrath et al.

Claims 2 and 3 are allowable at least because they depend from independent claim 1 . Accordingly, Applicants respectfully request that the Examiner withdraw the art grounds of rejection.

Claims 18-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilsenrath et al. Applicants respectfully traverse.

With regard to independent claim 18, claim 18 includes similar limitations to claim 1 and is allowable for at least the reasons stated above for independent claim 1.

Applicants assert that Claims 19-22 are allowable at least because they depend from claim 18. Accordingly, Applicants respectfully request that the Examiner withdraw the art grounds of rejection.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication that claims 4-17 and 23-25 are allowed. Applicants have not put claims 4-17 and 23-25 into independent form because they depend form one of claims 1 and 18 which Applicants assert are allowable.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the pending Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

In the event that any matters remain at issue in the application, the Examiner is invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By _____

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